

Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



70450 Isooctane p.S.

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Revised edition: 30.08.2021

Version: 2

Printed: 19.10.2022

1. Identification of the Substance/Mixture and of the Company/Undertaking

1.1. Product Identifier

Product Name: Isooctane p.S.

Article No.: 70450

UFI: --

1.2. Relevant identified Uses of the Substance or Mixture and Uses advised against

Identified uses:

*Industrial application
Coatings
Laboratory chemical*

Uses advised against:

1.3. Details of the Supplier of the Safety Data Sheet (Producer/Importer)

Company: Kremer Pigmente GmbH & Co. KG

Address: Hauptstr. 41-47, 88317 Aichstetten, Germany

Tel./Fax.: Tel +49 7565 914480, Fax +49 7565 1606

Internet: www.kremer-pigmente.com

E-Mail: info@kremer-pigmente.com

Importer: --

1.4. Emergency No.

Emergency No.: +49 7565 914480 (Mon-Fri 8:00 - 17:00)

1.4.2 Poison Center:

2. Hazards Identification

2.1. Classification of the Substance or Mixture

*Classification according to Regulation
(EC) No. 1272/2008 (CLP/GHS)*

*Flammable liquids, hazard category 2
Aspiration hazard, hazard category 1
Skin irritation, hazard category 2
Specific Target Organ Toxicity (single exposure), hazard category 3
Hazardous to the aquatic environment, chronic hazard category 1*

H225 Highly flammable liquid and vapour.

Cat.: 2

H304 May be fatal if swallowed and enters airways.

Cat.: 1

H315 Causes skin irritation.

Cat.: 2

H336 May cause drowsiness or dizziness.

Cat.: 3

H410 Very toxic to aquatic life with long lasting effects.

Cat.: 1

Possible Environmental Effects:

Label Elements

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2.2.

Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)

Hazard designation:



GHS02-2



GHS07



GHS08



GHS09

Signal word:

Danger

Hazard designation:

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H410	Very toxic to aquatic life with long lasting effects.

Safety designation:

P210	Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
P273	Avoid release to the environment.
P280	Wear protective gloves/ clothing/ eye/ face protection.
P301+P310	If swallowed: Immediately call a poison center or physician.
P331	Do not induce vomiting.
P391	Collect spillage
P403+P235	Store in a well ventilated place. Keep cool.

Hazardous components for labelling:

2.3. Other Hazards

*Particular danger of slipping on leaked/spilled product.
Vapors can cause an explosive mixture with air.*

3. Composition/Information on Ingredients

3.1. Substance

3.2. Mixture

Chemical Characterization:

Information on Components / Hazardous

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Ingredients:

Octane; 2,2,4-Trimethylpentane (H225-304-315-336-410); REACH Reg. No. 01-2119457965-22-xxxx

CAS-Nr: 540-84-1
EINECS-Nr: 208-759-1
EC-Nr: 601-009-00-8

Additional information:

4. First Aid Measures

4.1. Description of the First Aid Measures

General information:

*Remove contaminated clothes immediately.
Take person away from hazardous area.
Immediately get medical help.
Intoxication symptoms may occur after several hours, therefore a 48 hour medical observation is necessary.*

After inhalation:

*Supply fresh air. If required give artificial respiration. Keep patient warm.
Give artificial respiration in case breathing is not regular or if it has stopped.
Avoid mouth-to-mouth resuscitation. Apply alternative artificial respiration, preferably oxygen or pressure respirators.
In case of unconsciousness place patient stable in side position for transportation.*

After skin contact:

*Remove contaminated clothing immediately. Wash off with luke water and soap.
If symptoms persist, consult a physician.*

After eye contact:

Rinse open eye for several minutes under running water. Should irritation continue, seek medical advice.

After ingestion:

*Do not induce vomiting. Consult physician immediately.
If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
Careful when vomiting. Risk of aspiration. Keep respiratory tract open.*

4.2. Most important Symptoms and Effects, both Acute and Delayed

Symptoms:

No further information available.

Effects:

If vomiting occurs after ingestion, aspiration into the lungs can occur. Aspiration can cause pulmonary edema and pneumonia.

4.3. Indication of any Immediate Medical Attention and special Treatment needed

Treatment:

Treat symptomatically.

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5. Fire-Fighting Measures

5.1. Extinguishing Media

Suitable extinguishing media:

CO₂, extinguishing powder, water jet.
Fight larger fire with water jet or alcohol resistant foam.

Unsuitable extinguishing media:

Water with full jet.

5.2. Special Hazards arising from the Substance or Mixture

Special hazards:

Combustible.
In case of fire: formation of carbon monoxide and dioxide.
May cause explosive vapor-air-mixtures.

5.3. Advice for Firefighters

Protective equipment:

Wear self-contained respiratory protective device.

Further information:

Contaminated extinguishing water and debris should be disposed of according to local regulations.
Cool exposed containers with water spray.

6. Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Personal precautions:

Wear appropriate protective equipment. Keep spectators away.
Provide adequate ventilation. Keep away from sources of ignition.
Avoid contact with skin, eyes and clothing. Do not ingest or inhale.
Floor may be slippery; use care to avoid falling.

6.2. Environmental Precautions

Environmental precautions:

Prevent contamination of soil, drains and surface waters.
Contact local authorities if product pollutes soil or vegetation.
Reduce escaping gases/fumes/mist with water.

6.3. Methods and Material for Containment and Cleaning Up

Methods and material:

Contain with absorbent material (sand, diatomaceous earth, acid binder, universal absorbent, saw dust) and dispose accordingly.
Larger amounts should be pumped into adequate containers.
Ensure adequate ventilation.

6.4. Reference to other Sections

Protective clothing, see Section 8.
See Section 13 for information on disposal.

7. Handling and Storage

7.1. Precautions for Safe Handling

Instructions on safe handling:

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Provide adequate ventilation, also in floor area (vapors are heavier than air).

Avoid contact with eyes, skin and clothing.

Do not breathe vapors, aerosols.

Provide good ventilation and/or exhaust at the workplace. Ensure adequate ventilation. Handle and open container with care.

Hygienic measures:

Keep away from foodstuffs and drinks. Do not eat, drink or smoke during work. Wash hands before breaks and at the end of work.

7.2. Conditions for Safe Storage, including any Incompatibilities

Storage conditions:

Store in tightly sealed containers in a dry and cool room.

Protect against heat and direct sunlight.

Requirements for storage areas and containers:

Water law provisions have to be met.

Observe the regulations on storage of combustible solvents.

Suitable packaging: only approved packagings may be used.

Suitable container material: steel, polyethylene (PE), polypropylene (PP), polytetrafluoroethylene.

Unsuitable container material: natural rubber, latex and related products, IIR: butyl rubber, isobutene-isoprene rubber, polystyrol (PS), EDPM.

Information on fire and explosion protection:

Keep away from sources of ignition - do not smoke. Take measures to prevent electrostatic discharge.

Do not store together with: oxidants.

Vapors may form an explosive mixture with air.

Ensure electrical continuity by bonding and grounding (earthing) all equipment.

Storage class:

3; Flammable liquids (TRGS 510)

Further Information:

7.3. Specific End Use(s)

Further information:

No information available.

8. Exposure Controls/Personal Protection

8.1. Parameters to be Controlled

Parameters to be controlled (DE):

TRGS 900

Hydrocarbon mixture, used as solvent (free from additives).

TLV: Average value: 700 mg/m³; Short-term value: 1400 mg/m³

Parameters to be controlled:

Derived No-Effect Level (DNEL):

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773 mg/m³ bw/d (worker, skin contact, long-term exposure - systemic effects)

2035 mg/m³ (worker, inhalation, long-term exposure - systemic effects)

Predicted No-Effect Concentration (PNEC):

Additional Information:

8.2. Exposure Controls

Technical protective measures:

Exhaust system has to be explosion-protected.

Personal Protection

General protective measures:

Keep away from foodstuffs and drinks. Do not eat, drink or smoke during work. Wash hands before breaks and at the end of work.

Remove contaminated clothing immediately.

Avoid contact with skin, eyes and clothing.

Do not inhale vapor/dust.

Respiratory protection:

Respiratory equipment required in case of insufficient ventilation, filter type A (organic gases/vapors, boiling point > 65°C)

Hand protection:

Solvent resistant protective gloves.

Protective glove material:

Nitrile rubber (480 min, 0.4 mm)

Fluoro carbon rubber - FKM (480 min, 0.7 mm)

Please note the manufacturers' detailed statements, especially about the minimum thickness and the minimum breakthrough time.

Eye protection:

Tightly fitting safety goggles (EN 166).

Body protection:

Protective clothing, antistatic.

Environmental precautions:

9. Physical and Chemical Properties

9.1. Information on Basic Physical and Chemical Properties

Form: liquid

Color: colorless

Odor: mild

Odor threshold: no information available

pH-Value: not determined

Melting temperature: -50°C

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<i>Boiling temperature:</i>	97 - 100°C (EN ISO 3405)
<i>Flash point:</i>	<-10°C (DIN EN ISO 13736)
<i>Evaporation rate:</i>	No information available.
<i>Flammability (solid, gas):</i>	not available
<i>Upper explosion limit:</i>	5.5 Vol.-%
<i>Lower explosion limit:</i>	0.7 Vol.-%
<i>Vapor pressure:</i>	53 hPa (20°C)
<i>Vapor density:</i>	> 1 (air=1)
<i>Density:</i>	0.697 g/cm ³ (15°C)
<i>Solubility in water:</i>	slightly soluble
<i>Coefficient of variation (n-Octanol/Water):</i>	4.08 logPOW
<i>Auto-ignition temperature:</i>	No information available.
<i>Decomposition temperature:</i>	No data available.
<i>Viscosity, dynamic:</i>	0.5 mPa.s (20°C) 0.46 mPa.s (25°C); 0.38 mPa.s (40°C) (ECHA)
<i>Explosive properties:</i>	Product is not explosive; however, an explosive vapor/air mixture can be formed.
<i>Oxidizing properties:</i>	no information available
<i>Bulk density:</i>	not determined

9.2. Further Information

<i>Solubility in solvents:</i>	
<i>Viscosity, kinematic:</i>	0.75 mm ² /s (20°C)
<i>Burning class:</i>	
<i>Solvent content:</i>	
<i>Solid content:</i>	
<i>Particle size:</i>	
<i>Other information:</i>	Ignition temperature: 300°C Temperature class: T2 (maximum temperature: 300°C) Surface tension: 18.77 mN/m (20°C) (ECHA)

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10. Stability and Reactivity

10.1. Reactivity

When heated: risk of ignition.

10.2. Chemical Stability

Stable if used according to specifications.

10.3. Possibility of Hazardous Reactions

Development of explosive gases or vapors.

Empty containers may contain product gases which can develop explosive mixtures with air.

10.4. Conditions to Avoid

Conditions to avoid:

Avoid contact with heat, sparks, impact, friction, sparks and static discharge.

Thermal decomposition:

Avoid heat.

10.5. Incompatible Materials

Strong oxidizing agents.

10.6. Hazardous Decomposition Products

Carbon monoxide and dioxide.

10.7. Further Information

11. Toxicological Information

11. 1. Information on Hazard Classes as defined in Regulation (EC) No. 1272/2008

Acute Toxicity

Is not classified as acutely toxic.

LD50, oral:

> 5000 mg/kg (rat; OECD 401)

LD50, dermal:

> 2000 mg/kg (rabbit; OECD 402)

LC50, inhalation:

> 33.52 ml/m³ (4h, rat; OECD 403)

Primary effects

Irritant effect on skin:

Causes skin and mucous membrane irritation (OECD 404)

Irritant effect on eyes:

Not severely damaging or irritating to eyes.

Inhalation:

No information available.

Ingestion:

No information available

Sensitization:

No sensitizing effects known.

Mutagenicity:

Not mutagenic.

Reproductive toxicity:

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No relevant data found.

Carcinogenicity:

No relevant data found.

Teratogenicity:

No information available.

Specific target organ toxicity (STOT):

Single exposure: may cause drowsiness or dizziness.

Repeated exposure: no toxicological effects.

Aspiration hazard

May be fatal if swallowed and enters airways.

11.2. Information on other Hazards

Endocrine Disrupting Properties:

Not listed.

12. Ecological Information

12.1. Aquatic Toxicity

Very toxic for aquatic organisms.

Very toxic for aquatic organisms, with long-term adverse effects.

Fish toxicity:

LC50: 0.11 mg/l (96h, Oncorhynchus myskiss; OECD 203)

LL50: 18.4 mg/l (96h, Oncorhynchus mykiss; OECD 203)

NOEL: 0.82 mg/l (28d, Oncorhynchus mykiss)

Daphnia toxicity:

EC50: 0,4 mg/l (48h, Daphnia magna)

EL50: 1.6 mg/l (21d, Daphnia magna; OECD 211)

EC50: 0.23 mg/l (21d, Daphnia magna; OECD 211)

NOEC: 0.17 mg/l (21d, Daphnia magna; OECD 211)

NOEL: 1 mg/l (21d, Daphnia magna; OECD 211)

LOEC: 0.32 mg/l (21d, Daphnia magna; OECD 211)

Bacteria toxicity:

EL50: 15.33 mg/l (48h, Tetrahymena pyriformis)

Algae toxicity:

EC50: 2.943 mg/l (72h, Pseudokirchneriella subcapitata)

12.2. Persistency and Degradability

Not readily biodegradable.

Oxygen consumption: 51.3 % (28d; OECD 301F)

12.3. Bioaccumulation

Bioconcentration factor (BCF): 231 (ECHA)

12.4. Mobility

Adsorption: Adsorption coefficient (Organic Carbon): 2.38 (ECHA)

12.5. Results of PBT- und vPvP Assessment

Not applicable.

12.6. Endocrine Disrupting Properties

Not listed.

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12.7. Other Adverse Effects

Water hazard class:

2 (German Regulation) (Assessment by list): hazardous.

Behaviour in sewage systems:

Further ecological effects:

Do not let product enter waterways or sewage system.

AOX Value:

13. Disposal Considerations

13.1. Waste Treatment Methods

Product:

Must not be disposed together with household garbage.

Dispose of according to official national and local regulations.

European Waste Code (EWC):

Uncleaned packaging:

Dispose of according to official local regulations.

Waste Code No.:

14. Transport Information

14.1. UN Number

ADR, IMDG, IATA 1262

14.2. UN Proper Shipping Name

ADR/RID: OCTANE, UMWELTGEFÄHRDEND

IMDG/IATA: OCTANES, MARINE POLLUTANT

14.3. Transport Hazard Classes

ADR Class: 3

Hazard no.: 3

Classification code: F1

Tunnel restriction code: D/E

IMDG Class (sea): 3

Hazard no.: 3

EmS No.: F-E, S-E

IATA Class: 3

Hazard no.: 3

14.4. Packaging Group

ADR/RID: II

IMDG: II

IATA: II

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14.5. Environmental Hazards

Labelling according 5.2.1.8 ADR/RID: fish and tree
Labelling according 5.2.1.6.3 IMDG: fish and tree
Labelled with "P" according 2.10 IMDG: yes
Classification as environmentally hazardous according 2.9.3
IMDG: yes

14.6. Special Precautions for User

Warning: Inflammable liquids.

14.7. Maritime Transport in Bulk according to IMO Instruments

not applicable

14.8. Further Information

15. Regulatory Information

15.1. Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

Water hazard class:

2, hazardous for water (according to the German Regulation AwSV)

Local regulations on chemical accidents:

Seveso-III Directive (2012/18/EU):
Environmentally hazardous (E1); Amount 1: 100 t; Amount 2: 200 t
Flammable liquids (P5c): Amount 1: 5000 t; Amount 2: 50000 t

Employment restrictions:

The employment restrictions for young workers in accordance with the Youth Employment Protection Law (§ 22 JArbSchG) are to be observed.

The employment restrictions for nursing mothers are to be observed (§11 MuSchRiV).

Restriction and prohibition of application:

EC. REACH, Section XVII, Restrictions on the Manufacture, Placing on the Market and Use of Certain Dangerous Substances, Preparations and Articles, Registered no. 3, 40, 75

Technical instructions on air quality:

5.2.5.: Organic substances: > 25 wt.-% (m>=0.50 kg/h: conc. 50 mg/m³)

15.2. Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this product.

15.3. Further Information

RoHS Directive 2011/65/EC on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS): not listed.

Regulation (EC) 648/2004 on detergents:

Aliphatic hydrocarbons: > 30 %

Regulation (EU) No. 2019/1148, Annex I - Restricted Explosives Precursors (upper limit value for the purpose of licensing under Article 5(3)): None of the ingredients is listed.

Regulation (EC) 1005/2009 - Substances that Deplete the Ozone Layer: not regulated / not applicable

Regulation (EC) 649/2012 concerning the export and import of

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dangerous chemicals: Not applicable

Regulation (EU) 2019/1021 - Persistent organic pollutants: not regulated / not applicable

Listed in the following inventories:

EINECS (208-759-1), TSCA (US), AICS (AUS), DSL (CA), ENCS/CSCL (JP), KECI (KR), PICCS (PH), IECSC (CN), NZIoC (NZ), TCSI (TW), CICR (TR), INSQ (MX)

16. Other Information

This product should be stored, handled and used in accordance with good hygiene practices and in conformity with any legal regulations. This information contained herein is based on the present state of knowledge and is intended to describe our product from the point of view of safety requirements. It should be therefore not be construed as guaranteeing specific properties.